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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,244	03/21/2001	David Glen Roe	70803	2001

26327 7590 06/18/2003

THE LAW OFFICE OF KIRK D. WILLIAMS  
1234 S. OGDEN ST.  
DENVER, CO 80210

EXAMINER

COX, CASSANDRA F

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/814,244

Applicant(s)

ROE, DAVID GLEN

Examiner

Cassandra Cox

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (U.S. Patent No. 5,977,806).

In reference to claim 1, Kikuchi discloses in Figure 1 a circuit comprising: a first phase-locked loop (10): including an off-chip reference clock input, a first set of one or more phase-locked loop clock outputs (OUTPUT SIGNAL); and a second phase-locked loop circuit (20) including: an on-chip reference clock input and a second set of one or more phase-locked loop clock outputs (this is seen to be the output taken at the output of the VCO 24). Kikuchi does not disclose a buffered reference clock output of the first phase-locked loop (10) being electrically coupled to the on-chip reference clock input of the second phase-locked loop circuit (54). However, it would have been obvious to one skilled in the art at the time of the invention that the input signal which is received by both phase locked loops (10, 20) could be buffered before being input into the second phase-locked loop for the advantage of being able to filter any unwanted noise from the

reference signal in order to obtain a more accurately synchronized clock. The same applies to claims 9, 15, 18, and 20.

4. Claims 2-8, 10-14, 16-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (U.S. Patent No. 5,977,806) in view of applicant's admitted prior art "Phase-Locked Loop," ASIC SA-27 Databook, Document No. SA 14-2214-02, IBM Corp., August 24, 1999, pp. 825-866.

In reference to claim 2, Kikuchi discloses all of the limitations as mentioned above with reference to claims 1, 9, 15, 18, and 20. However, Kikuchi does not show that the first set of one or more phase-locked loop clock outputs of the first phase-locked loop circuit includes at least two phase-locked loop clock outputs. The IBM reference discloses that the first set of one or more phase-locked loop clock outputs of the first phase-locked loop circuit (PLL7SLIBE) includes at least two phase-locked loop clock outputs (PLLOUTA, PLLOUTB, PLLOUTC). Because it is well known to one skilled in the art that phase-locked loops can be designed to output multiple clock signals, it would have been obvious to one skilled in the art at the time of the invention that the circuit of Kikuchi could be modified simply by "tapping" the output of the VCO (14) or using multiple dividers as supported by the IBM reference. The same applies to claim 10.

In reference to claim 3, Kikuchi discloses all of the limitations as mentioned above with reference to claims 1, 9, 15, 18, and 20. However, Kikuchi does not show that the buffer internal to the first phase locked loop is electrically connected to between the off-chip reference clock input and the buffered reference output. The IBM reference

discloses in Figure 23 a buffer (BUF) internal to the first phase-locked loop circuit, the buffer (BUF) being electrically connected between the off-chip reference clock input (REFCLK) and the buffered reference clock output (BUFREFCLK). It would have been obvious to one skilled in the art at the time of the invention that the PLL of the IBM reference could be used in place of the first phase-locked loop of the Kikuchi reference as an alternative method of implementing a phase-locked loop. The same applies to claim 17.

In reference to claim 4, the IBM reference discloses that the first phase-locked loop circuit (PLL7SLIBE) and the second phase-locked loop circuit (PLL7SLIBI) are predefined library circuits (which is seen to be the same as being defined as Macros). The same applies to claims 6, 7, 11, and 13.

In reference to claim 5, the IBM reference discloses on page 827 that the first phase-locked loop circuit (PLL7SLIBE) and the second phase-locked loop circuit (PLL7SLIBI) can be included in ASICs. The same applies to claims 12, 16, and 19.

In reference to claim 8, the IBM reference discloses on page 829 (in the Notes section) that the off-chip reference clock input of the first phase-locked loop circuit is directly electrically coupled to a pad (I/O pads) of a chip. The same applies to claim 14.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 703-306-

5735. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM and on alternate Fridays from 8:00 AM to 4:30 PM.

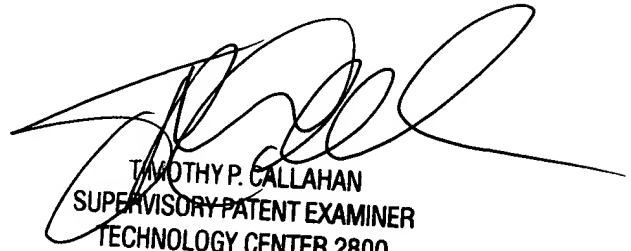
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703)-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

CC

*CS*

June 16, 2003

  
TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800